

# VERMILION PARISH COASTAL RESTORATION PROJECTS

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# Vermilion Parish Coastal Priority Project List



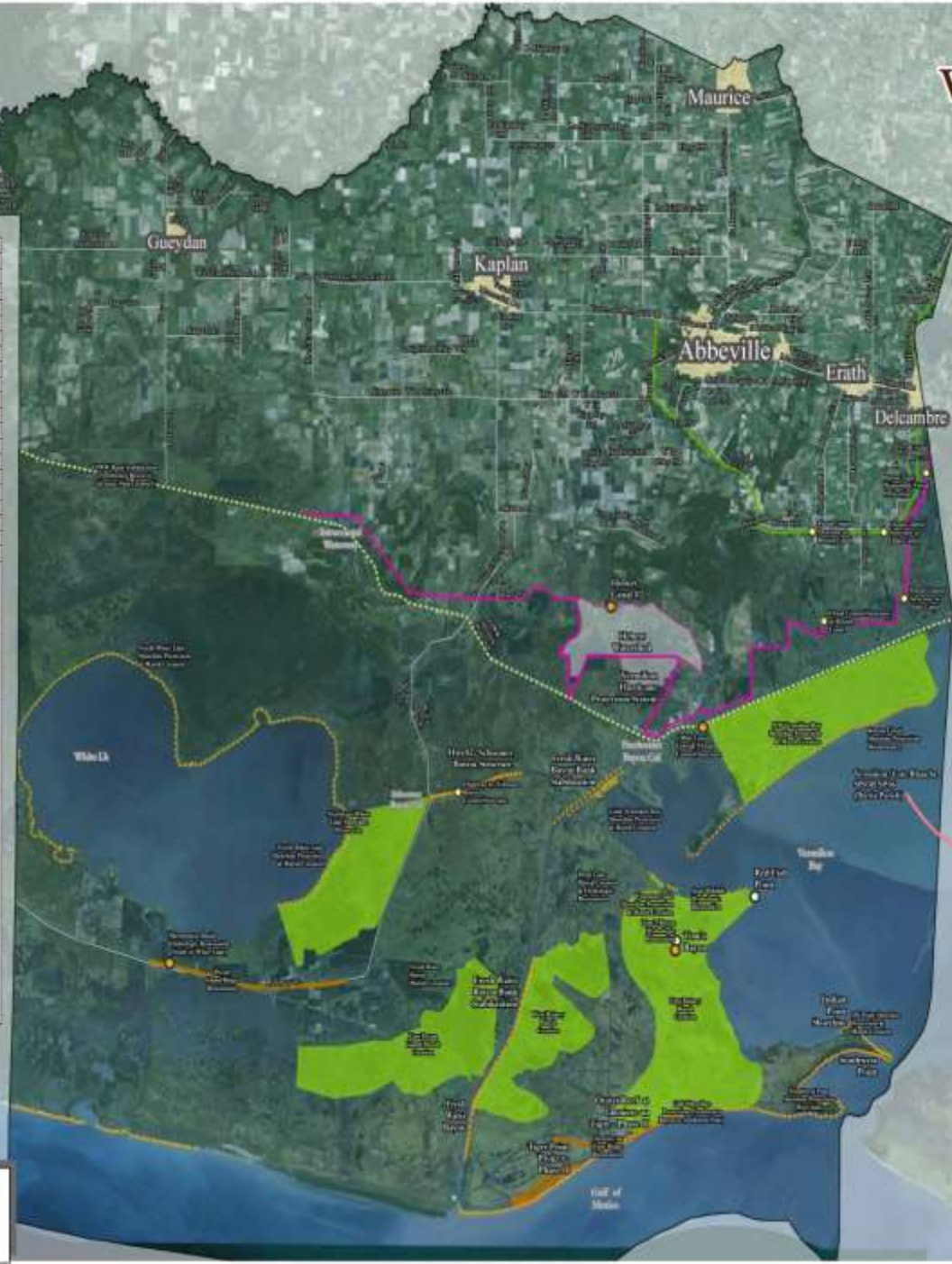
- Hurricane Protection Projects**
1. Bayou Tige Wetland Flood Protection
  2. Flood Control Structure at Delta Canal
  3. Flood Control Structure at Baton Canal
  4. Lake Ma Land Shoring
  5. West Lake Wetland Flood Protection
  6. Wetland Flood Control
  7. Wetland Flood Control of Wetlands outside of the Wetland Protection System
  8. Wetland Flood Control of Wetlands outside of the Wetland Protection System
  9. Lake Ma Wetland Flood Protection
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- Shoreline Protection/Bank Stabilization Projects**
1. Wetland Bank Stabilization
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- Marsh Creation**
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- Hydrologic Restoration**
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- Ridge Restoration**
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  18. Ridge Restoration
  19. Ridge Restoration
  20. Ridge Restoration



**Legend**

- Flood Control Structure
- Marsh Creation
- Hydrologic Restoration
- GIWW Shoreline Protection
- Bank Stabilization
- Ridge Restoration
- Shoreline Protection
- Marsh Creation
- Hurricane Protection - Master Plan
- Hurricane Protection - Southwest Study

# Coastal Projects in Vermilion Parish Constructed over the last 26 years (CWPPRA, CIAP, State Surplus)

PPL	Number	Project Name	Project Types	Current Estimate	Acres Benefited
2	ME-04	Freshwater Bayou Wetland Protection	Hydrologic Restoration, Shoreline Protection	6,059,651.31	1593
5	ME-13	Freshwater Bayou Bank Stabilization	Shoreline Protection	8,913,366.06	511
7	ME-14	Pecan Island Terracing	Sediment and Nutrient Trapping	2,390,984.44	442
12	ME-22	South White Lake Shoreline Protection	Shoreline Protection	14,466,980.83	844
19	ME-31	Freshwater Bayou Marsh Creation	Marsh Creation (E&D cost only)	2,425,997.00	279
1	TV-03	Vermilion River Cutoff Bank Protection	Shoreline Protection	2,047,478.71	65
2	TV-09	Boston Canal/Vermilion Bay Bank Protection	Shoreline Protection, Vegetative Planting	1,043,748.21	378
5	TV-12	Little Vermilion Bay Sediment Trapping	Shoreline Protection, Sediment Trapping	886,029.62	441
6	TV-16	Cheniere Au Tigre Sediment Trapping Demo	Demonstration	624,999.42	0
8	TV-17	Lake Portage Land Bridge	Shoreline Protection	1,181,128.92	24
9	TV-18	Four Mile Canal Terracing and Sediment Trapping	Sediment and Nutrient Trapping	3,792,936.24	167
21	TV-63	Cole's Bayou Marsh Restoration	Hydrologic Restoration, Marsh Creation	26,631,225.00	340
			<b>TOTAL CWPPRA FUNDING</b>	70,464,525.76	5084
			<b>TOTAL CIAP FUNDING</b>	18,361,155.00	
	ME-25	Marsh Creation near Freshwater Bayou	<b>TOTAL STATE SURPLUS FUNDING</b>	3,400,000.00	96
			<b>VERMILION PARISH GRAND TOTAL</b>	<b>92,225,680.76</b>	<b>5180</b>

# OYSTER REEF PARALLEL TO THE COASTLINE AT CHENIERE AU TIGRE

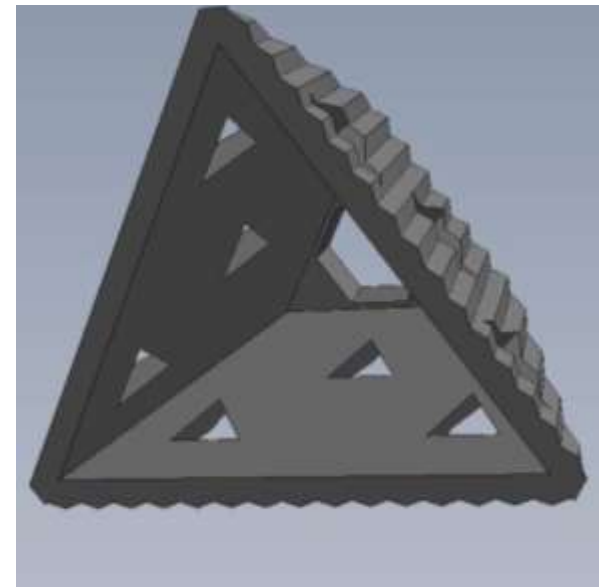
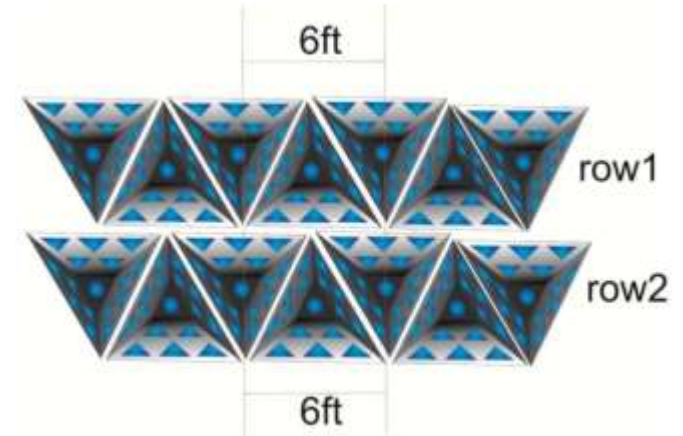
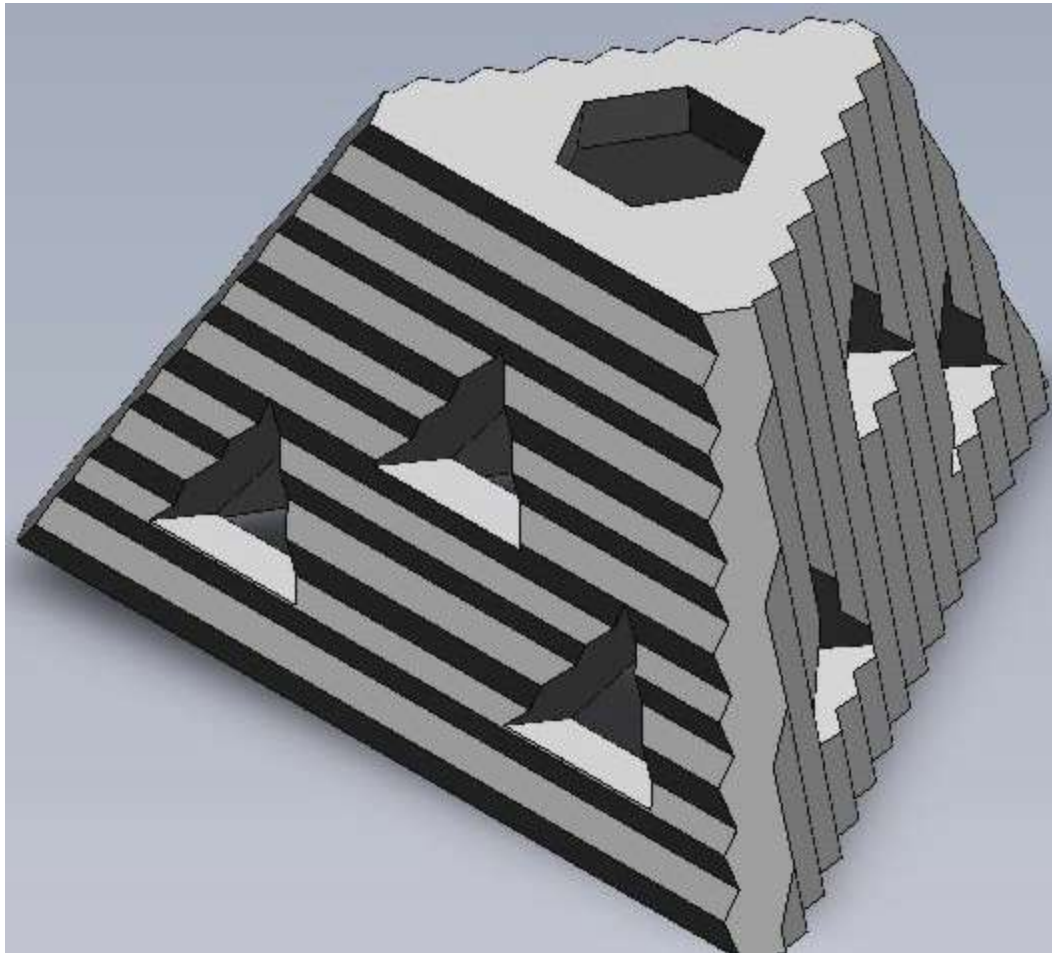
## PROJECT DESCRIPTION

- Create a one-half (1/2) mile oyster reef parallel to the shoreline
- Estimated Cost: \$1,438,984
- Allocated CIAP Funds: \$1,438,984
- Status: Construction Complete

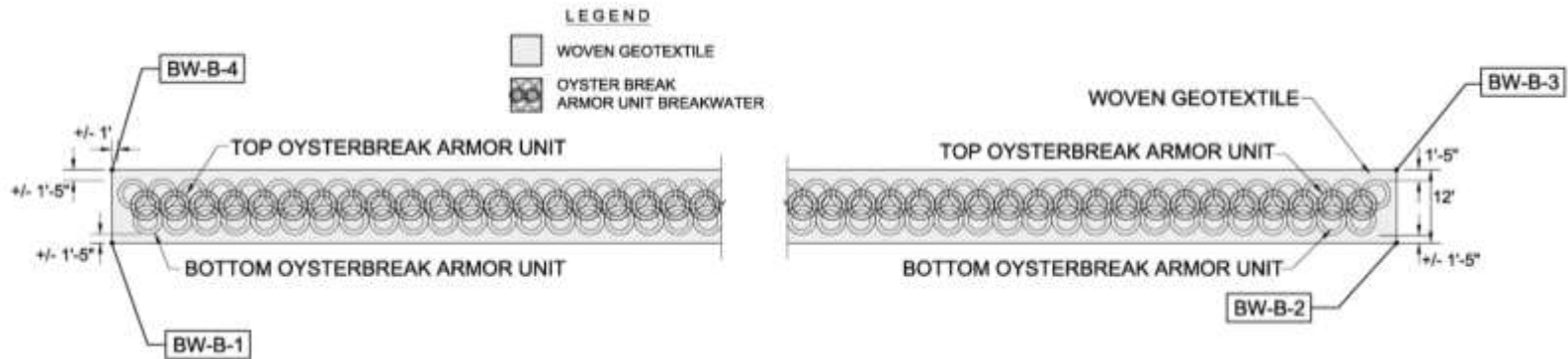
## PROJECT LOCATION



# OYSTER REEF PARALLEL TO THE COASTLINE AT CHENIERE AU TIGRE



# OYSTER REEF PARALLEL TO THE COASTLINE AT CHENIERE AU TIGRE













# SHORELINE PROTECTION & MARSH CREATION AT TIGER POINT

## PROJECT DESCRIPTION

- Create Oyster Reef Parallel to the Shoreline
- Allocated CIAP Funds: \$1,385,585
- Status: Construction Complete

## PROJECT LOCATION









# NORTH PRONG OF SCHOONER BAYOU

## PROJECT DESCRIPTION

- Levee restoration on east bank of the North Prong of Schooner Bayou and install culverts with flap gates
- Estimated Cost: \$1,650,000
- Allocated CIAP Funds: \$1,650,000
- Status: Complete

## PROJECT LOCATION



# Additional Structure Repairs





# FRESHWATER BAYOU BANK STABILIZATION

## PROJECT DESCRIPTION

- Approximately seven (7) miles of rock dike shoreline protection along critical areas of Freshwater Bayou navigation canal
- Allocated Parish CIAP Funds: \$1,568,804
- Allocated State CIAP Funds: \$12,000,000
- Status: Construction Complete

## PROJECT LOCATION





INTRACOASTAL  
CITY

GIWW

WHITE  
LAKE

VERMILION BAY

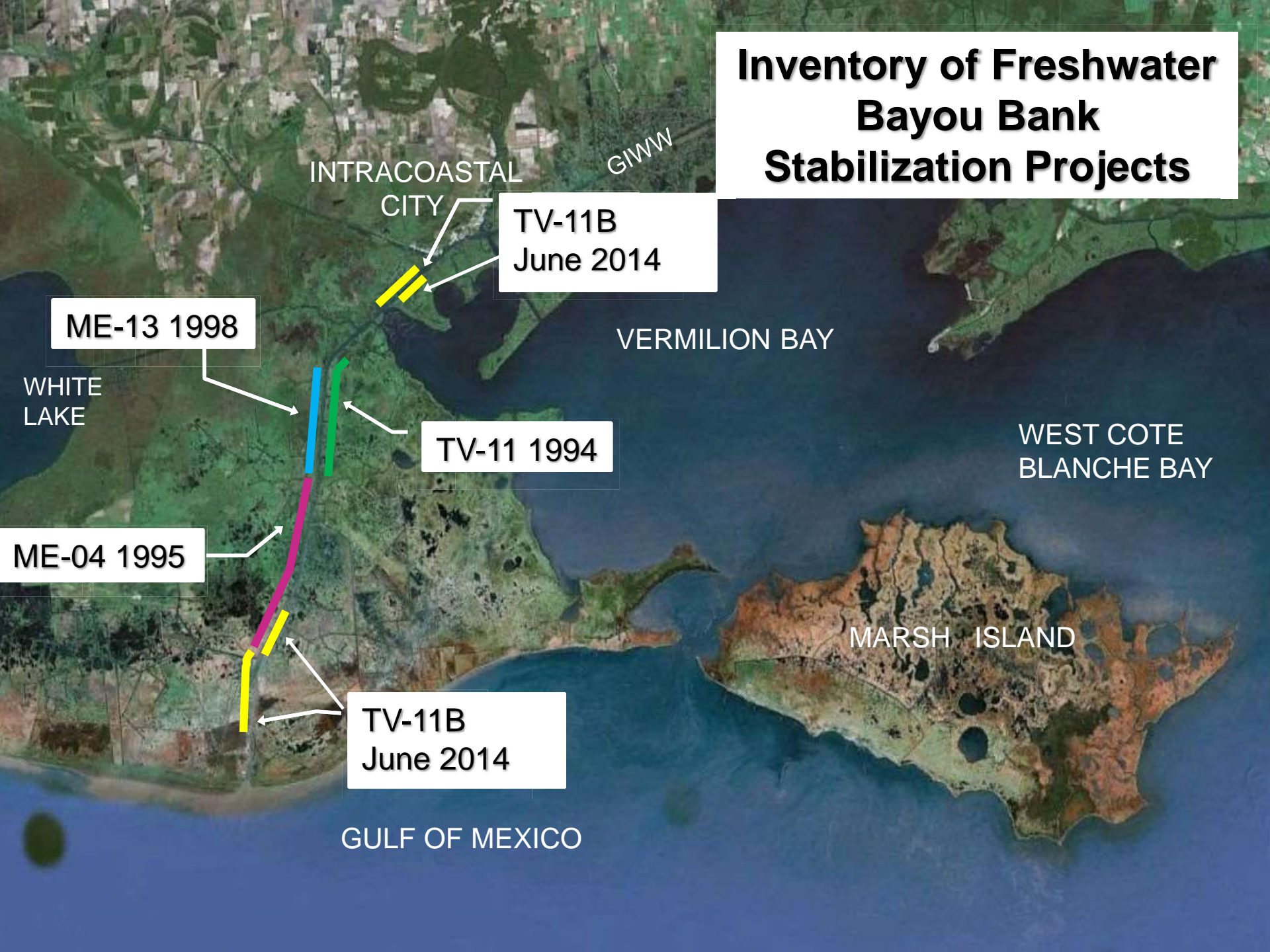
WEST COTE  
BLANCHE BAY

FRESHWATER  
BAYOU CANAL

MARSH ISLAND

GULF OF MEXICO

# Inventory of Freshwater Bayou Bank Stabilization Projects



INTRACOASTAL CITY

GIWW

TV-11B  
June 2014

VERMILION BAY

WEST COTE BLANCHE BAY

MARSH ISLAND

GULF OF MEXICO

ME-13 1998

WHITE LAKE

TV-11 1994

ME-04 1995

TV-11B  
June 2014







# FW Bayou Bank Stabilization (ME-04 & ME-13) Maintenance Work

- **Description:** Replacement of displaced rock for bank stabilization on western bank of Freshwater Bayou
- **Construction Cost:** \$4.4 million
- **Funding Source:** CWPPRA
- **Status:** Construction began: December 2015
  - Final inspection: March 2016

# Existing FW Bayou (ME-04 & ME-13) requiring maintenance work





# Existing FW Bayou (ME-14 & ME-13) after construction





INTRACOASTAL CITY

GIWW

VERMILION BAY

WEST COTE BLANCHE BAY

WHITE LAKE

FRESHWATER BAYOU CANAL

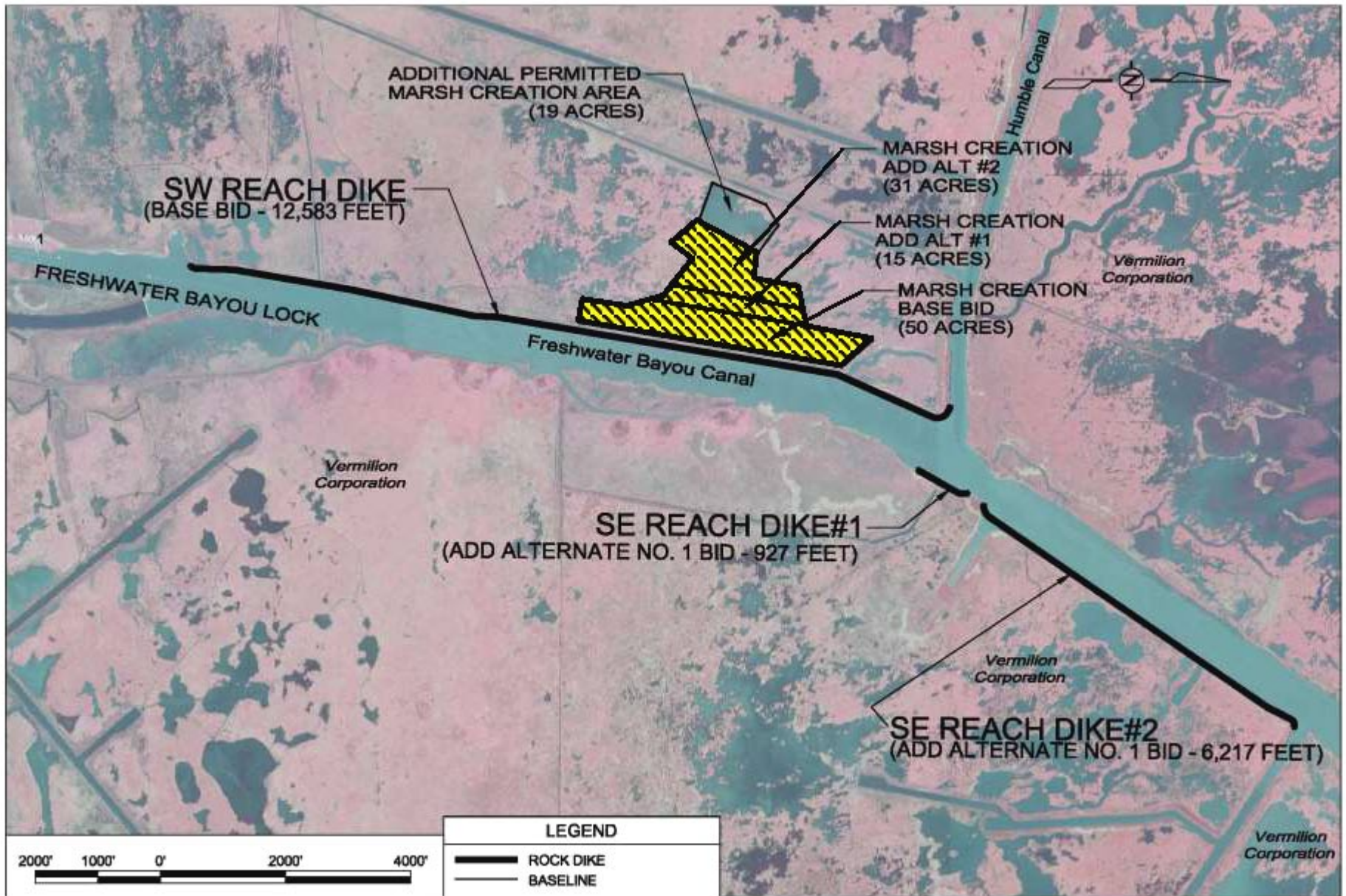
MARSH ISLAND

GULF OF MEXICO

**MARSH CREATION  
NEAR FRESHWATER  
BAYOU PROJECT  
(ME-25)**

# Marsh Creation near Freshwater Bayou (ME-25)

- **Total Construction Cost:** \$3.4 million
- **Construction:** 96 acres of marsh creation
- **Sediment source:** Freshwater Bayou
- **Funding Source:** State Surplus Funds (primary source) plus two DNR funds (BU & in lieu fee mitigation)
- **Project Status:** Construction started June 18, 2014. Dredging complete as of May 22, 2015.























INTRACOASTAL CITY

GIWW

VERMILION BAY

WHITE LAKE

WEST COTE BLANCHE BAY

**FRESHWATER BAYOU MARSH CREATION PROJECT (ME-31)**

GULF OF MEXICO



MARSH ISLAND

CANAL

BAYOU

FRESHWATER

# Freshwater Bayou Marsh Creation (ME-31)

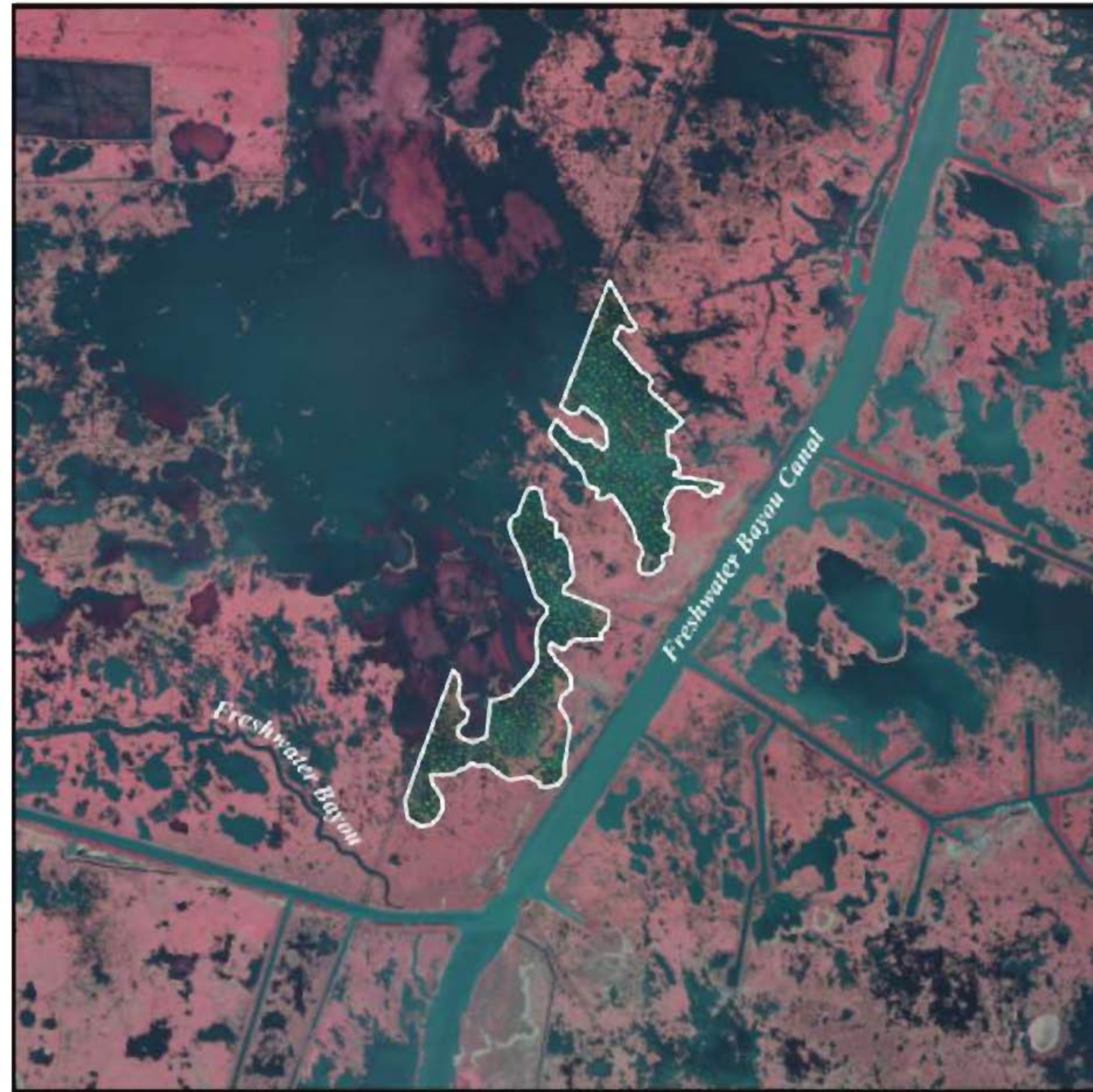
-  Marsh Creation \*
  -  Project Boundary
- \*denotes proposed features



Map Produced by:  
U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Field Station  
Baton Rouge, La.

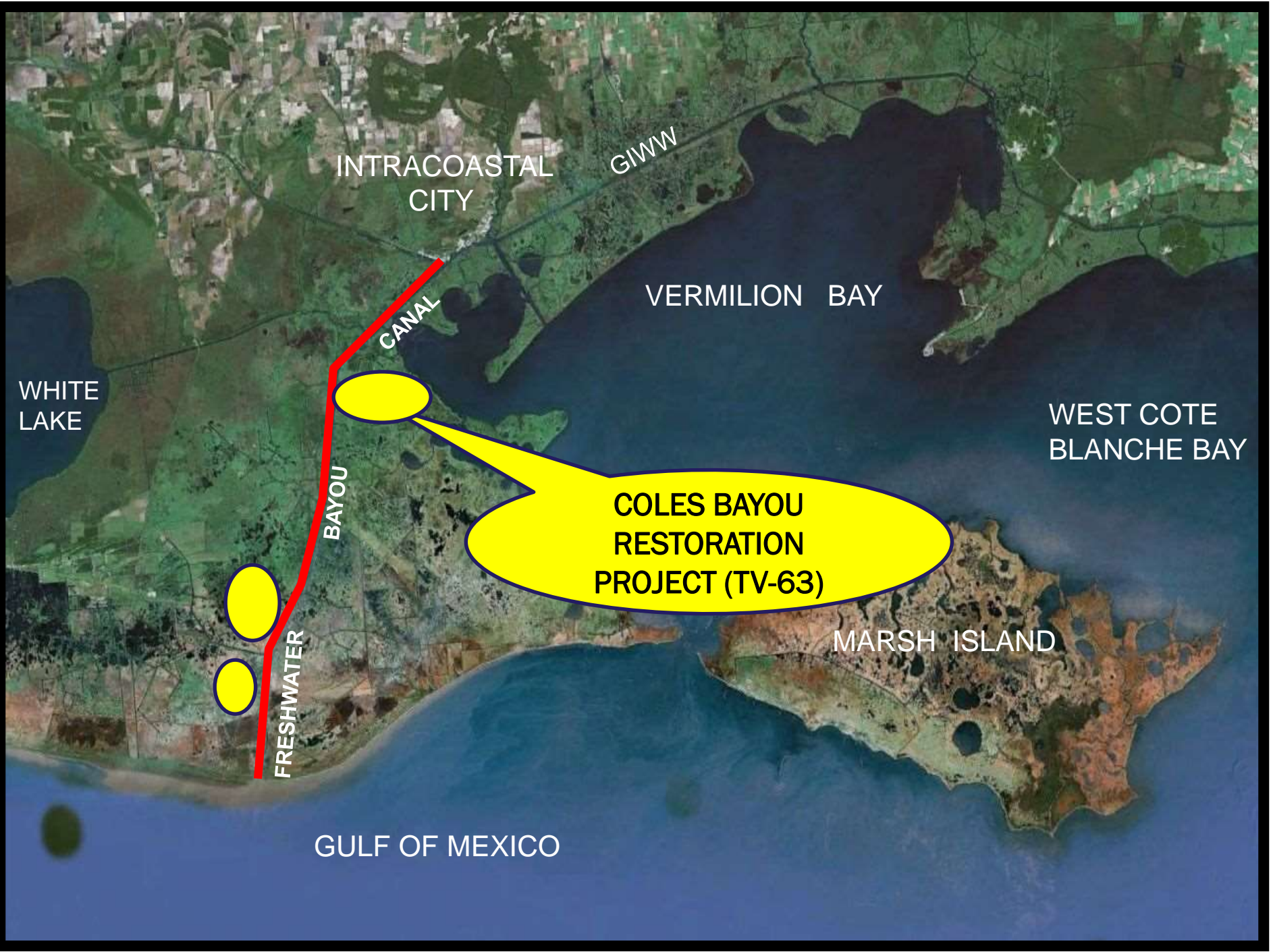
Background Imagery:  
2008 Digital Orthophoto Quarter Quadangle

Map Date: February 5, 2010  
Map ID: USGS-NWRC 2010-11-002  
Data accurate as of: February 5, 2010



# FW Bayou Marsh Creation (ME-31)

- **Description:** Marsh creation west of FW Bayou & north of Humble Canal. Will create 400 acres of marsh with sediment from Gulf of Mexico.
- **Approved funds:** \$2.4 m (Engineering & Design)
- **Funding Source:** CWPPRA
- **Status:**
  - Project team identifying pipelines in project footprint
  - Once pipeline identification is complete, final project footprint can be determined.
  - Upon determination of project limits, geotech work and draft landrights to begin.
  - At the earliest, seeking construction funds Dec 2017



INTRACOASTAL CITY

GIWW

VERMILION BAY

WEST COTE BLANCHE BAY

WHITE LAKE

**COLES BAYOU RESTORATION PROJECT (TV-63)**

MARSH ISLAND

GULF OF MEXICO

CANAL

BAYOU

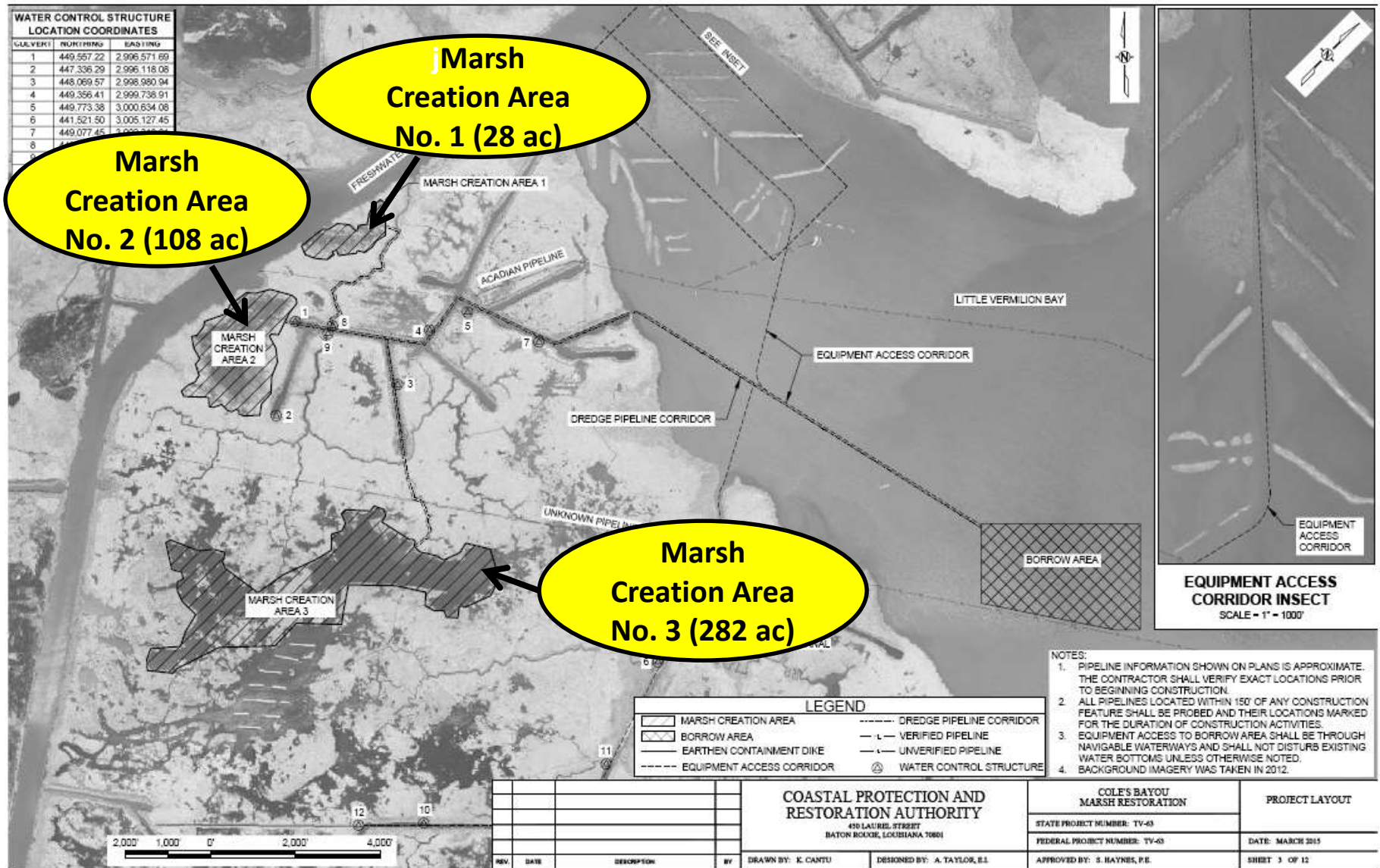
FRESHWATER



# Project Information

- Funding Source: CWPPRA PPL 21
- Federal Sponsor: NMFS
- Creates/Nourishes : 418 acres
- Restores Hydrology thru project area
  - 9 water control structures locations
- Dredge Volume (cut): 1,828,080 CY
- Earthen Containment Dikes: 43,108 LF
- Maximum Pump Distance: 6.1 miles

# Marsh Creation Design



# Cole's Bayou Restoration (TV-63)

- **Status:**

- Received construction funding approval at January Task Force Meeting
- Construction permit attained – May 2016
- Plans and specs are being finalized
- Project will be bid in 1<sup>st</sup> quarter of 2017



INTRACOASTAL CITY

GIWW

VERMILION BAY

WEST COTE BLANCHE BAY

LITTLE VERMILION BAY TERRACING (TV-12)

MARSH ISLAND

GULF OF MEXICO

WHITE LAKE

CANAL

BAYOU

FRESHWATER

# LITTLE VERMILION BAY TERRACING PROJECT

## TV-12

- **Description:** The project consists of dredging 21,300 linear feet of distributary channels and create approximately **33 acres of terraces**. The channels and terraces are intended to trap sediments from Freshwater Bayou to create vegetative wetlands and dissipate wave energy in this open water area and combat land loss.
- **Construction Cost:** \$886,029 (1997)
- **Funding Source:** CWPPRA
- **Conclusions and Recommendations as per 2013 CPRA Inspection Report:** The Little Vermilion Bay Sediment Trapping Project is in very good condition and still functioning as intended. Emergent vegetation is becoming established. **Narrowing the opening into FWB and re-establishing the sacrificial terraces to the south will allow this project to continue to be successful.**



INTRACOASTAL  
CITY

GIWW

WHITE  
LAKE

Vermilion River  
Cutoff  
(Four Mile Canal)

WEST COTE  
BLANCHE BAY

MARSH ISLAND

GULF OF MEXICO



INTRACOASTAL  
CITY

GIWW

WHITE  
LAKE

Vermilion River  
Cutoff Bank  
Protection (TV-03)

WEST COTE  
BLANCHE BAY

MARSH ISLAND

GULF OF MEXICO

# Vermilion River Cutoff Bank Protection

- Funding Source: CWPPRA
- Federal Sponsor: USACE
- Project Cost: \$2,047,479
- Protects : 194 acres
- Foreshore Rock Dike: 8,900 LF
- Status: Construction complete 1996



# Vermilion River Cutoff Bank Protection (TV-03)



Shoreline Protection



Project Boundary



1000 0 1000 Feet

300 0 300 Meters

Map Produced By:  
U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Field Station

Background Imagery:  
1998 Digital Orthophoto Quarter Quadrangle

Map Date: August 13, 2002  
Map ID: 2002-11-671  
Data accurate as of: August 13, 2002

Vermilion Bay

Onion Lake

Four Mile Cutoff



INTRACOASTAL  
CITY

GIWW

FOUR MILE  
TERRACING &  
SEDIMENT TRAPPING  
(TV-18)

VERMILION BAY

WHITE  
LAKE

WEST COTE  
BLANCHE BAY

MARSH ISLAND

GULF OF MEXICO

# Project Information

- Funding Source: CWPPRA
- Federal Sponsor: NMFS
- Project Cost: \$3,792,936
- Creates: 214 acres
- Protects : 113 acres in Vermilion Bay
- Earthen Terraces: 50,000 LF
- Status: Construction complete 2004

# Four Mile Canal Terracing and Sediment Trapping (TV-18)



Terrace\*



Project Boundary

\* denotes proposed features

**USGS**  
science for a changing world



Map Produced By:  
U.S. Department of the Interior  
U.S. Geological Survey  
National Wetlands Research Center  
Coastal Restoration Field Station

Background Imagery:  
1998 Digital Orthophoto Quarter Quadrangle

Map Date: November 13, 2002  
Map ID: 2002-11-535  
Data accurate as of: November 13, 2002





INTRACOASTAL CITY

GIWW

Boston Canal  
Shoreline Protection  
(TV-09)

WHITE LAKE

CANAL

VERMILION BAY

WEST COTE  
BLANCHE BAY

BAYOU

FRESHWATER

MARSH ISLAND

GULF OF MEXICO

# Project Information

**Project:** Boston Canal/Vermilion Bay Bank Protection (TV-09)

**Construction Date:** November 1995

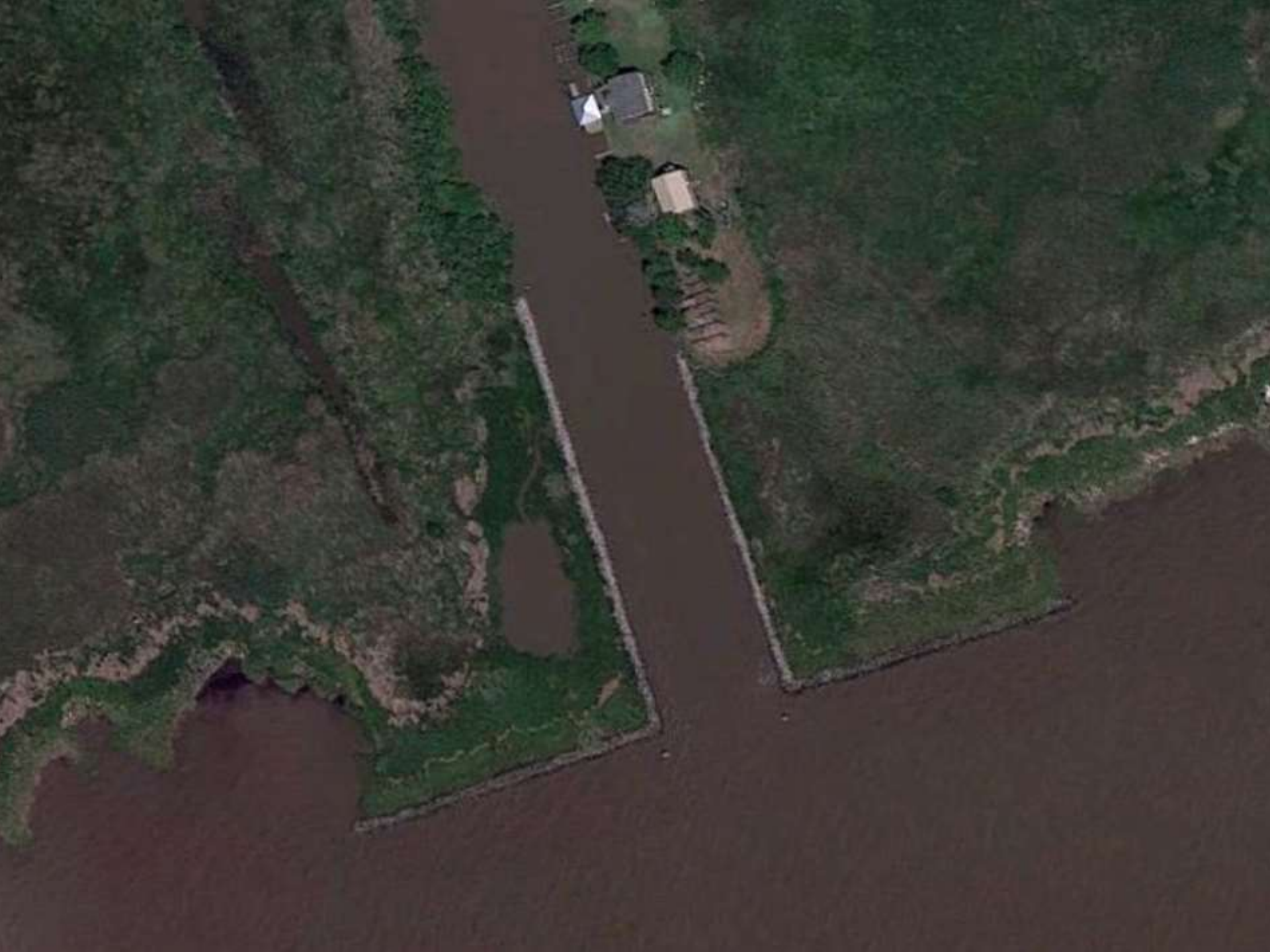
**Project Purpose:** Stabilize 15 miles of the northern bank of Vermilion Bay shoreline and prevent further regression of the Boston Canal banks

## Project Features:

- 1,405 LF of Rock Riprap Dikes
- 13.25 Miles of Vegetative Shoreline Plantings









# **Proposed Future Restoration and Protection Projects**

- Breaches along norther rim of Vermilion Bay
- Bayou Tigre Flood Protection Projects



INTRACOASTAL  
CITY

GIWW

WHITE  
LAKE

EAST & WEST  
BREACHES ON  
VERMILION BAY RIM

VERMILION BAY

WEST COTE  
BLANCHE BAY

MARSH ISLAND

GULF OF MEXICO

# Project Information

- Breaches have occurred over the years and have formed a connection with the Vermilion Bay and the interior marshes
- The proposed project plans to plug the breaches and restore the natural hydrology
- Funding for the project will come from the RESTORE Act (BP Settlement)

10/22/2005

Image U.S. Geological Survey



1998

Imagery Date: 10/22/2005 29°45'43.24" N 92°04'43.42"

10/22/2005



1998

Imagery Date: 7/24/2004 29°46'32.52" N 92°03'09.73"

10/29/2010



1998

Imagery Date: 10/29/2010 29°45'41.78" N 92°04'43.95"

10/29/2010



1998

Imagery Date: 10/29/2010 29°46'31.31" N 92°03'08.42"



Bayou Tigre  
Flood Control  
(TV-57)

INTRACOASTAL  
CITY

GIWW

CANAL

VERMILION BAY

WHITE  
LAKE

WEST COTE  
BLANCHE BAY

BAYOU

FRESHWATER

MARSH ISLAND

GULF OF MEXICO



# Flood Protection Projects

Vermilion Parish



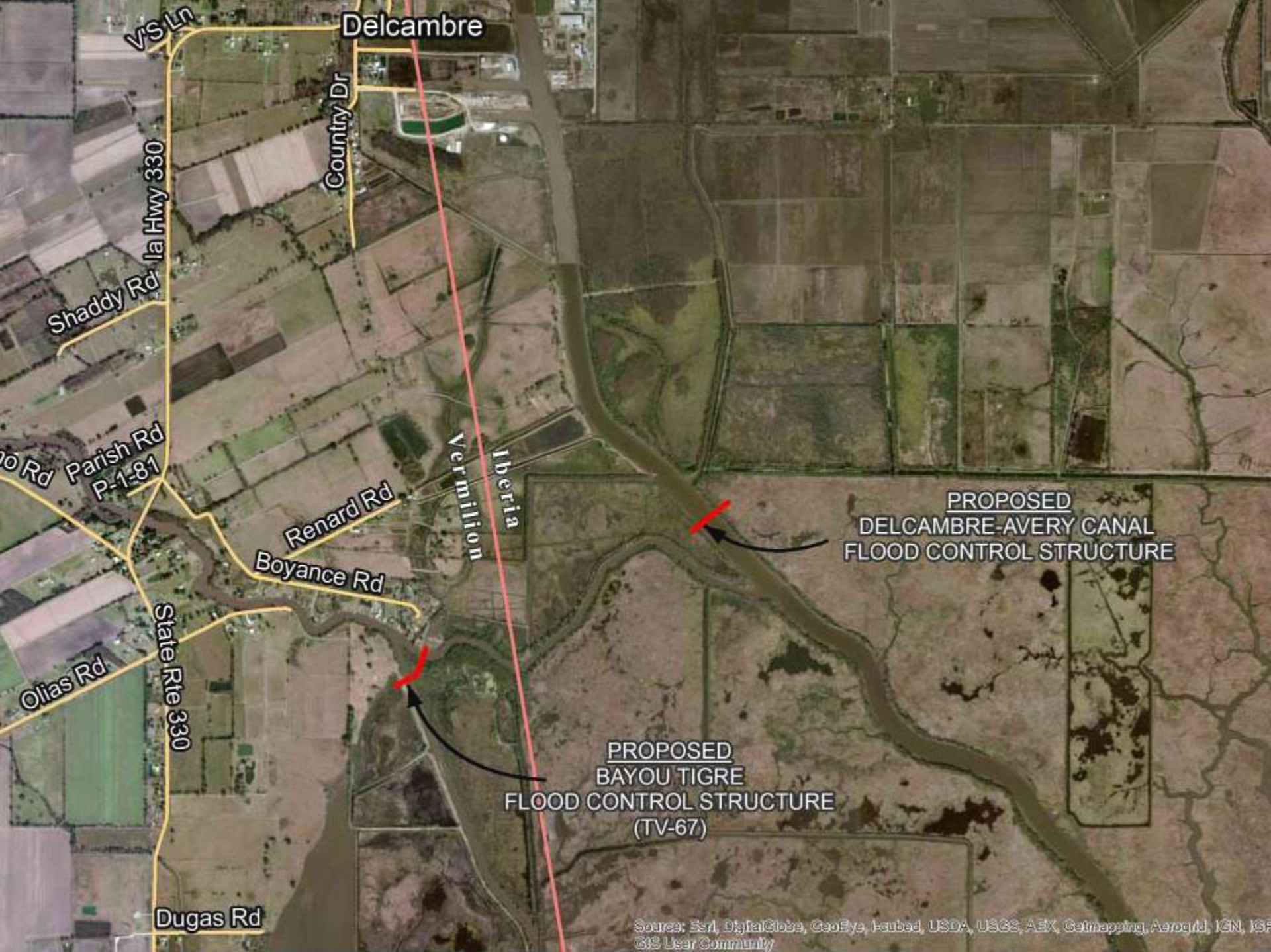
Coastal Protection and  
Restoration Authority of Louisiana

TV-67 Bayou Tigre-Flood Control Structure

TV-75 Bayou Tigre-Pump Station



committed to our coast



Delcambre

Vs Ln

Country Dr

Ia Hwy 330

Shaddy Rd

Parish Rd P-1-81

Renard Rd

Boyance Rd

Vermilion  
Iberia

Ollias Rd

State Rte 330

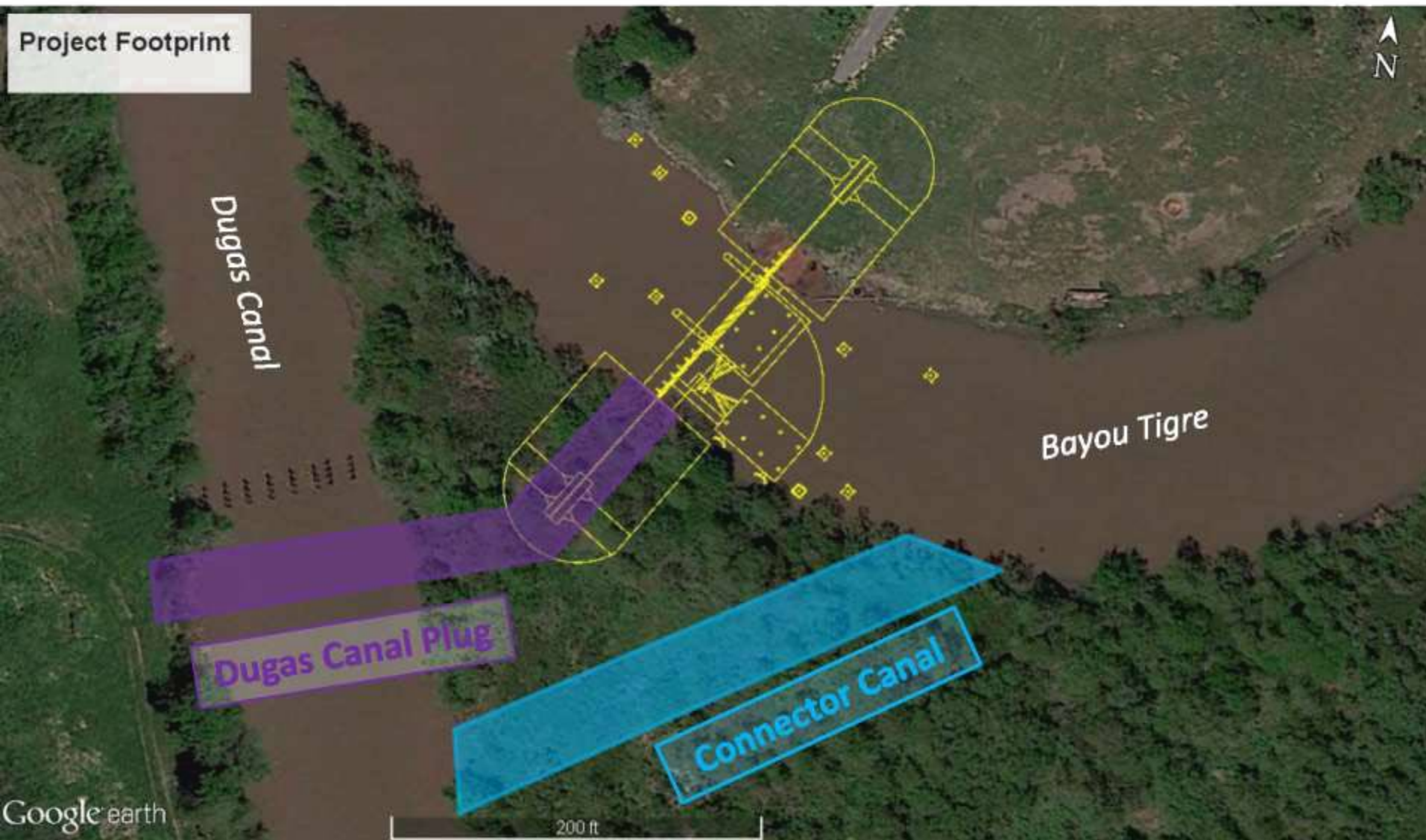
Dugas Rd

PROPOSED  
DELCAMBRE-AVERY CANAL  
FLOOD CONTROL STRUCTURE

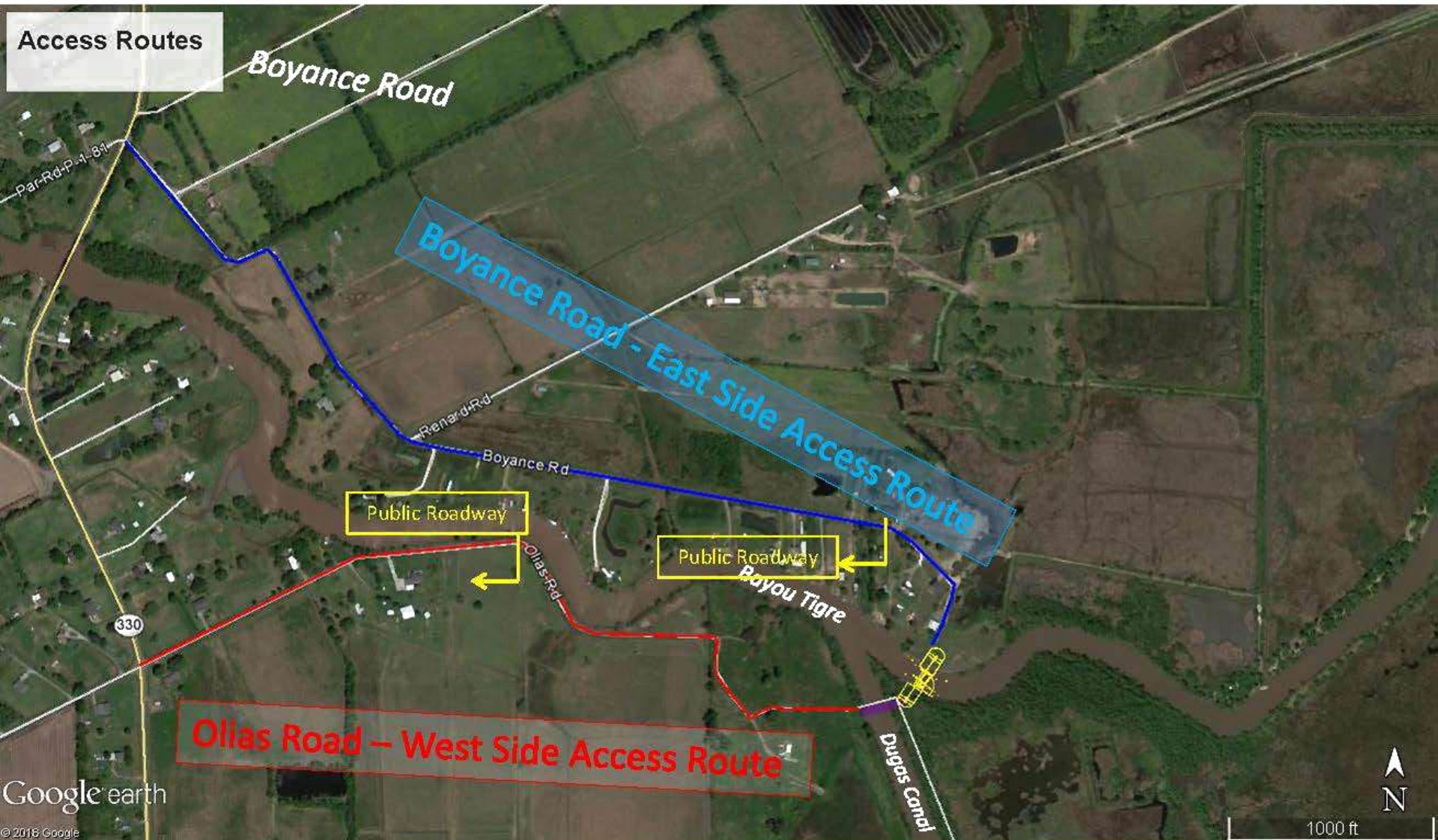
PROPOSED  
BAYOU TIGRE  
FLOOD CONTROL STRUCTURE  
(TV-67)



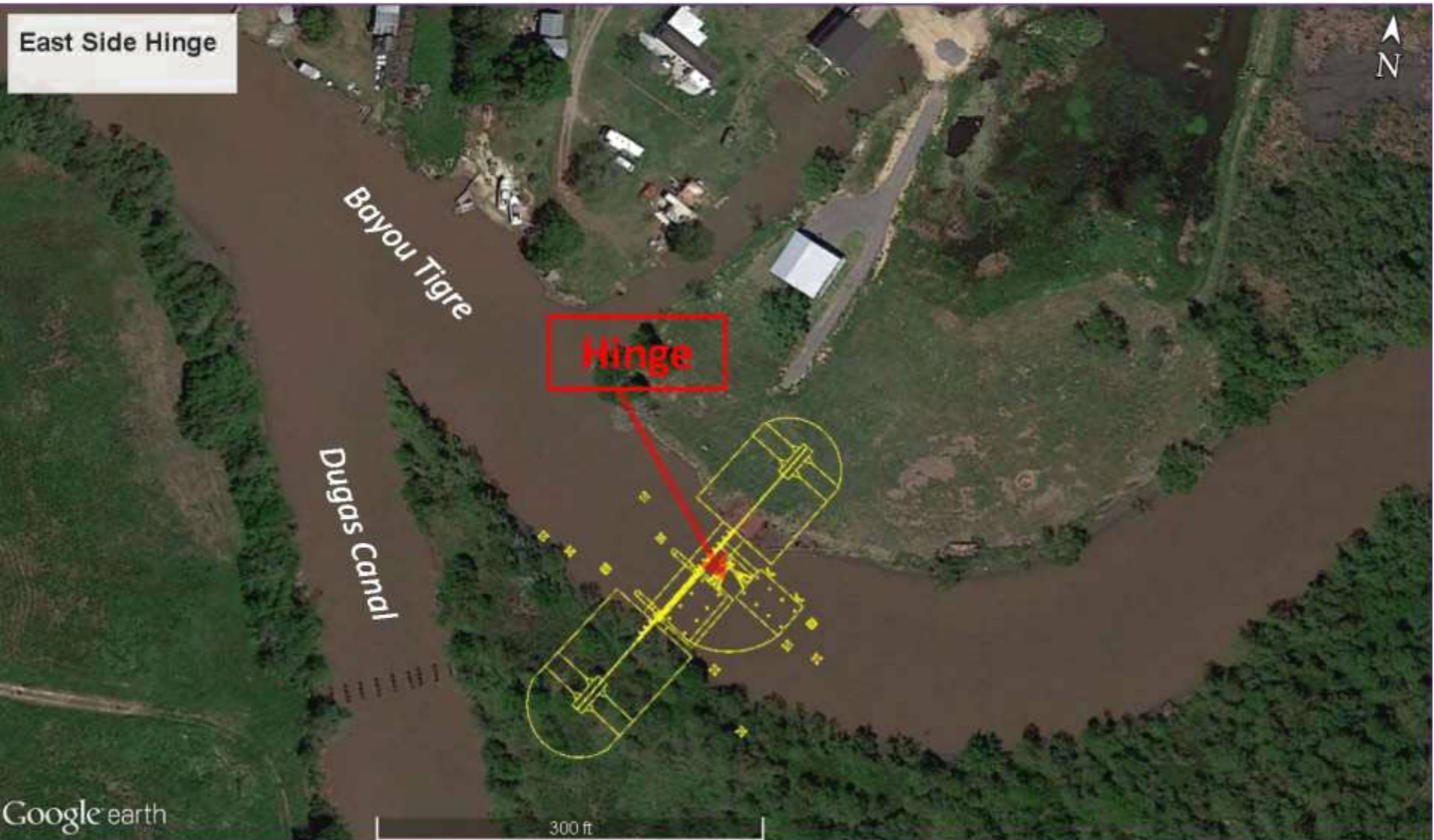
# TV-67 Project Footprint



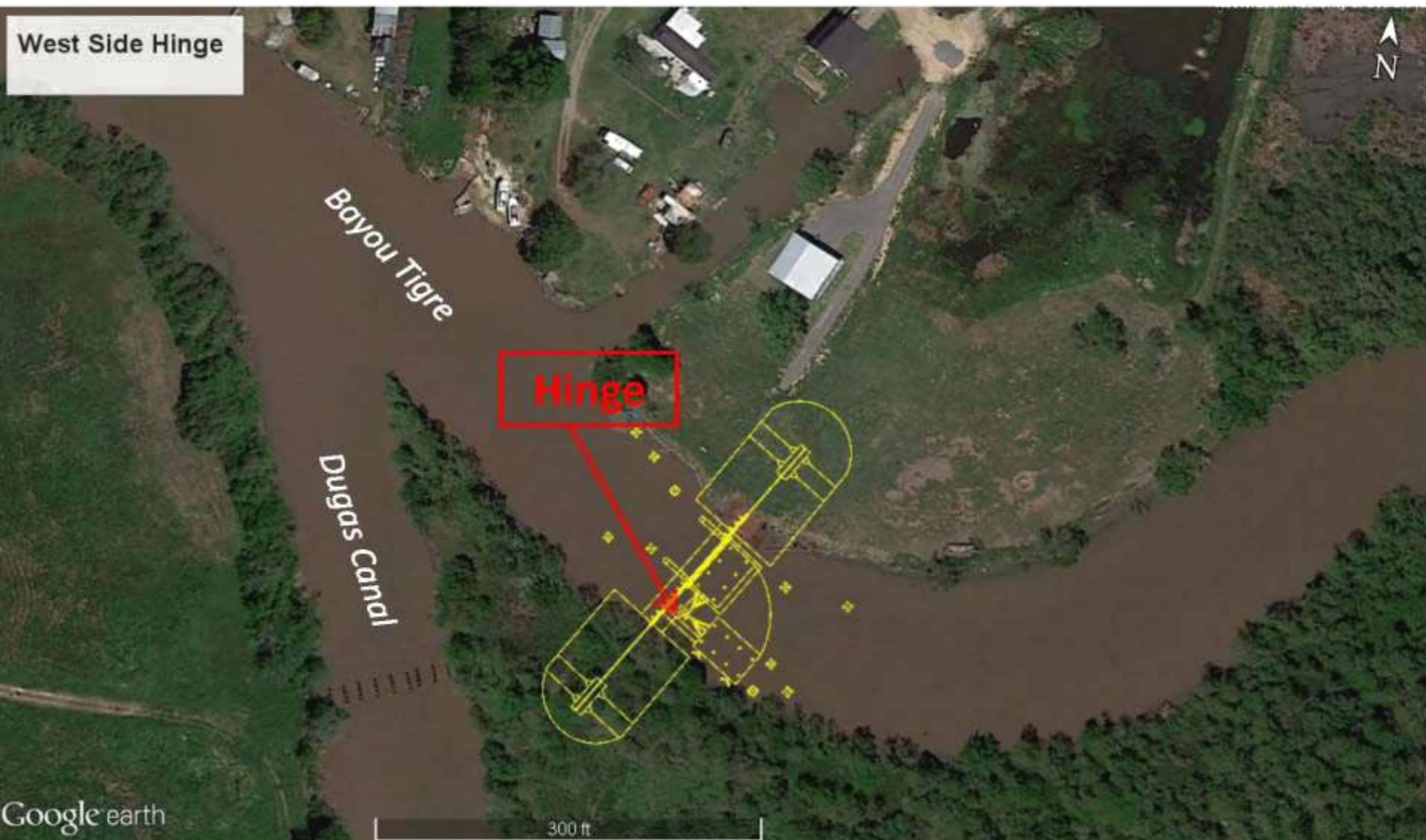
# Access Route Map



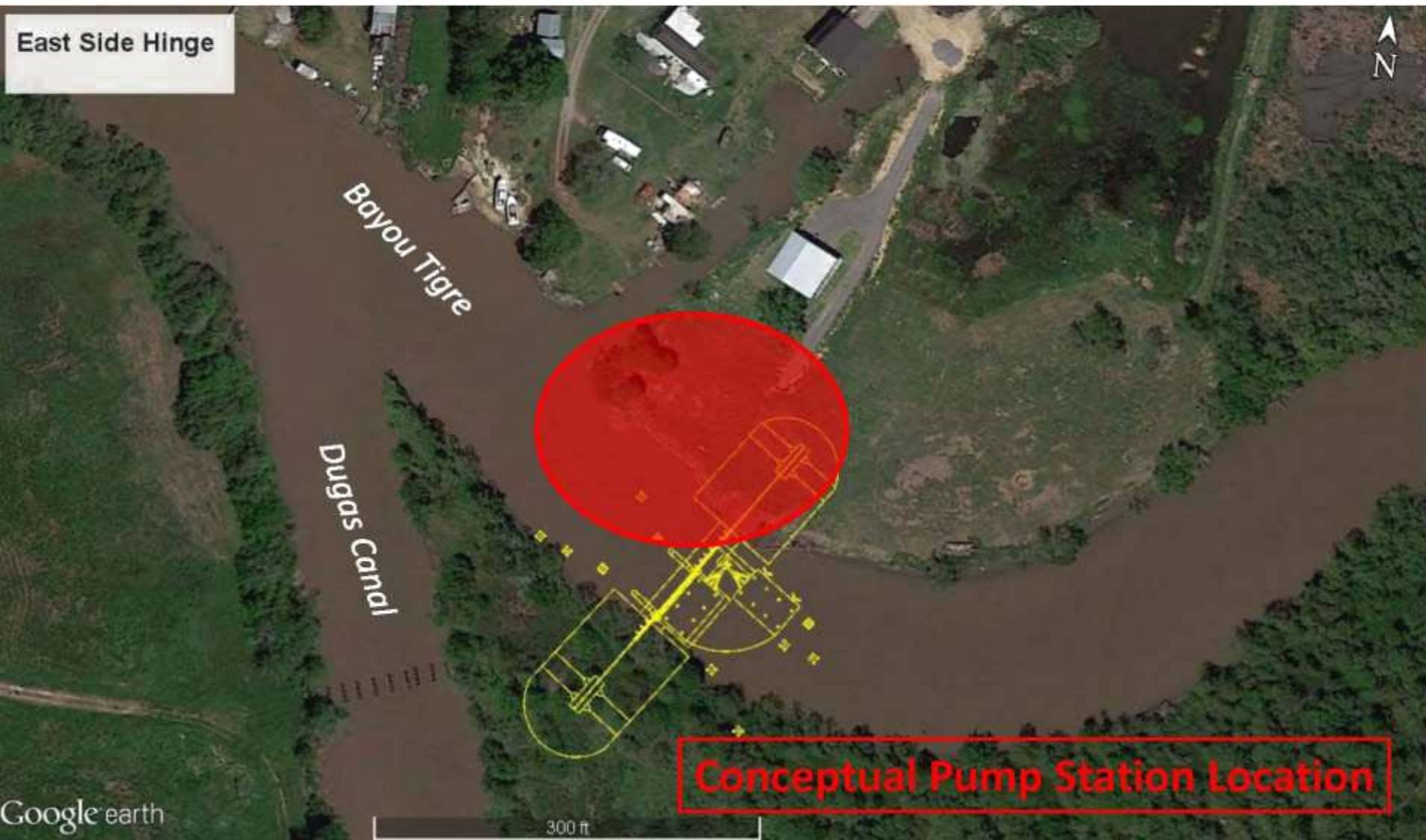
# East Side Hinge Location



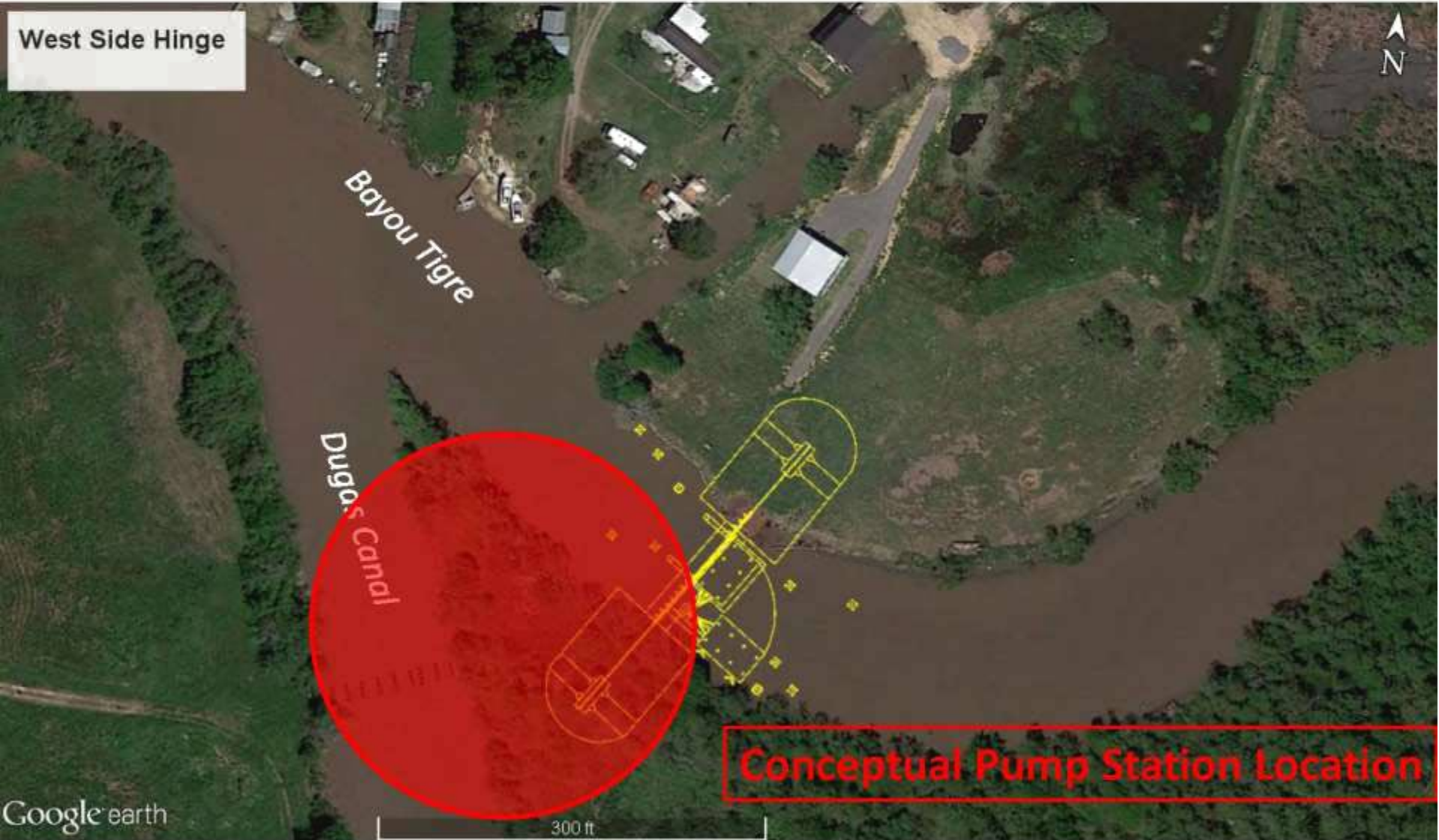
# West Side Hinge Location



# TV-75 Pump Station Location



# TV-75 Pump Station Location







PROJECT:

CPRA ODBG Bayou Tigre  
Flood Control Project

T/ PILE  
EL. 25.00

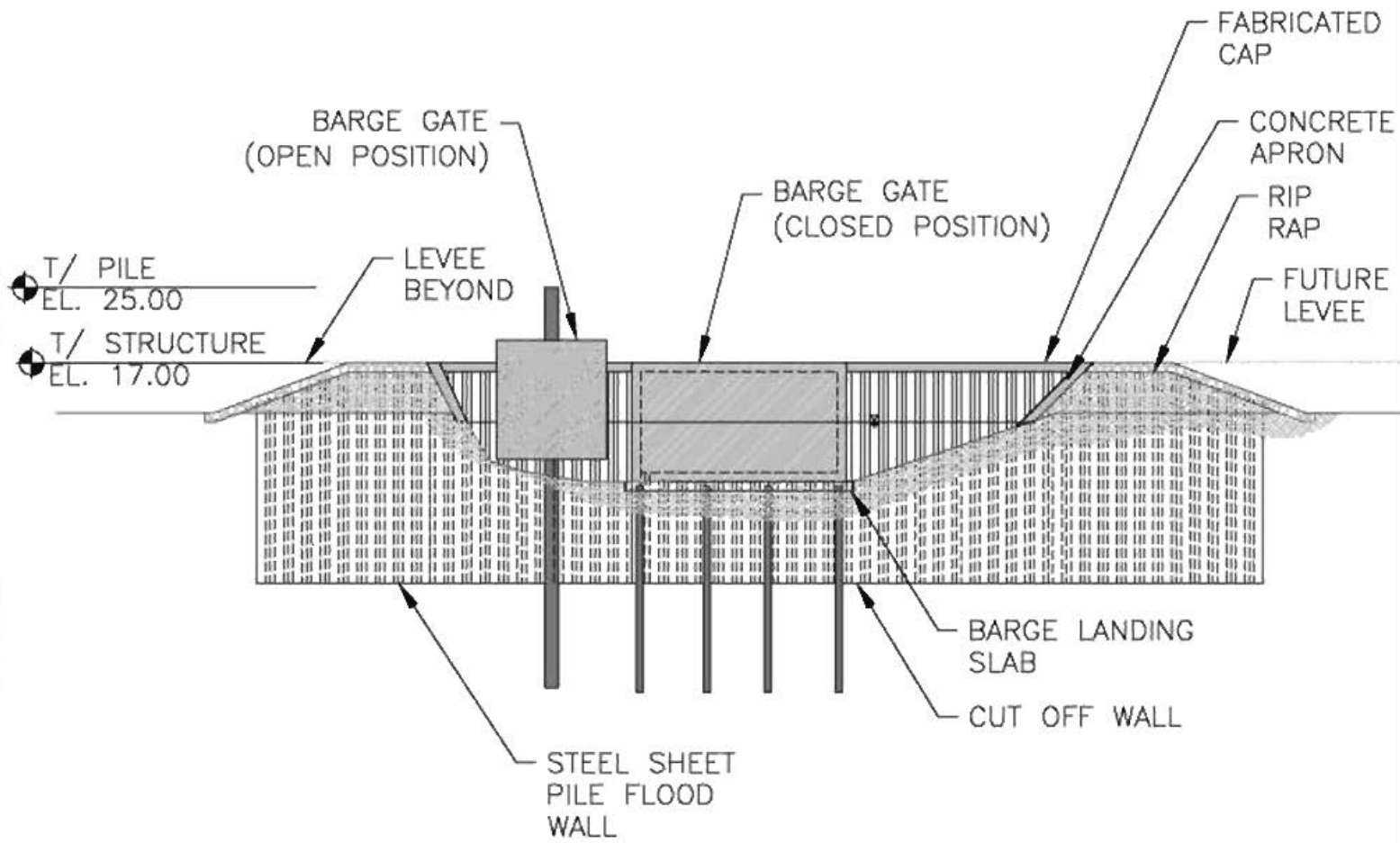
T/ STRUCTURE  
EL. 17.00

LOCATION:

SITE 2

OPTION:  
45' BARGE GATE  
(40' MIN. CLEAR PASSAGE)

EXHIBIT 4



SECTION B-B  
SCALE: N.T.S.



**Franklin Canal Barge Gate  
Constructed 2014**  
(Bayou Tigre Gate will be  
similar type structure)

# Bayou Tigre Flood Control Project (TV-57)

- **Proposed Construction** : Barge Gate; levee work
- **Funding Source**: CDBG funds
- **Location**: SE of Erath; S of Delcambre; West of Delcambre/Avery Canal; 9 miles N of Vermilion Bay
- **Project Status**:
  - Design of structure and pump station **on hold** pending outcome of meeting with FEMA regarding level of detail of H&H study with regards to No Rise Certification.

# Questions ?

Contact Vermilion Parish Protection and Restoration Committee

